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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,172	01/19/2001	Michael T. Duignan	MR2799-3	2382

4586 7590 06/17/2004

ROSENBERG, KLEIN & LEE
3458 ELLICOTT CENTER DRIVE-SUITE 101
ELLICOTT CITY, MD 21043

EXAMINER

LEE, DOUGLAS S


ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 06/17/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/744,172	Applicant(s) DUIGNAN, MICHAEL T. 	
	Examiner Douglas S Lee	Art Unit 2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-33 are rejected under the judicially created doctrine of double patenting over claims 1-13 of U. S. Patent No. 6,583,381 and claims 1-21 of U. S. Patent No. 6,649,861 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: A method for fabrication of miniature structures, comprising the steps of: providing a fabrication tool, including: a substrate having a surface, an energy beam directed towards said substrate, and control means operating said fabrication tool in (1) material removal mode of operation and (2) material transfer mode of operation, in a predetermined sequence; whereby when said fabrication tool is in said material removal mode of operation, further providing a direct access of said energy

beam to said surface of said substrate and cleaning said surface of said substrate by changing a relative disposition between said energy beam and said substrate in accordance with a first predetermined pattern.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Hosoya et al. (US Pat. # 5,319,183).

Regarding claims 1 and 17, Hosoya et al. disclose a method and apparatus for cutting a pattern and cleaning a printed wiring board including a substrate (see fig. 4, element 1, col. 5, lines 60-65) having a surface, an energy beam (see fig. 4, element 21, col. 6, lines 6-14) directed towards said substrate, and control means (see fig. 4, element 4, col. 6, lines 63) operating said fabrication tool in (1) material removal mode of operation and (2) material transfer mode of operation, in a predetermined sequence; whereby when said fabrication tool is in said material removal mode of operation, further providing a direct access of said energy beam to said surface of said substrate (see

cols. 6-21) and cleaning (see fig.28, cols. 21-26) said surface of said substrate by changing a relative disposition between said energy beam and said substrate in accordance with a first predetermined pattern.

Regarding claim 2, Hosoya et al. further disclose the steps of providing a material carrier element (see fig.4, element 22, and fig. 5a, col. 6, lines 17-35) having a deposition layer supported thereon and facing said substrate, whereby when said fabrication tool is in said material transfer mode of operation further including positioning said deposition layer in an interception path with said energy beam, and changing a relative disposition between said energy beam and said substrate in accordance with said first predetermined pattern, thereby transferring a deposition material contained in said deposition layer on said surface of said substrate at locations thereon cleaned during said material removal mode of operation.

Regarding claims 3-5, 8-12 and 18-19, Hosoya et al. further disclose the steps of changing the mode of operation of said fabrication tool to a successive material removal mode of operation following said material transfer mode of operation (see cols. 5-21), and cleaning the surface of said substrate by changing relative disposition between said energy beam and said substrate in accordance with a second predetermined pattern (see cols. 21-26).

Regarding claim 6, Hosoya et al. further disclose a laser beam (see fig. 4, element 21).

Regarding claim 7, Hosoya et al. further disclose the laser beam including an ultraviolet laser beam (see col.21, line 14).

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Regarding claims 13-14, Hosoya et al. further disclose in said material removal modes of operation, supplying a carrier gas flowing through for the cleaning of the substrate surface (see col. 21, lines 6-40).

Regarding claims 15-16, Hosoya et al. further disclose the steps of adjusting the intensity of energy beam for removing the materials (see col.23).

Regarding claim 20, this apparatus claim is rejected for the same reasons applied above rejected method claims (claims 1 and 17).

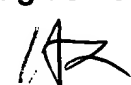
Conclusion

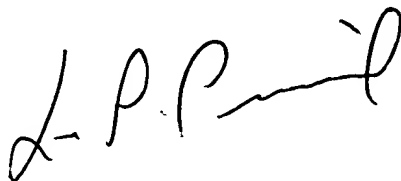
1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Douglas Lee, whose telephone number is (703) 305-6907. The examiner can normally be reached on Monday-Friday from 8:00AM- 4:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Leo Picard*, can be reached on (703) 308-0538 or via e-mail addressed to *[leo.picard@uspto.gov]*. The fax number for this Group is (703) 872-9306. Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to **[doug.lee@uspto.gov]**.

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 306-5631.

Douglas Lee


6/7/2004



**LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100**